The Main Menu

Newsletter for AppleWorks Users

Volume 2 Number 5 May 1987

Part 1

How Can I Move Thee? Let Me Count the Ways

by Steve High

Getting from here to there in the AppleWorks database can be as confusing as the motoring directions you get from local New Englanders: "You know that old oak tree by the second creek you come to? Turn left there." If you become familiar with the terrain, though—whether in New England or in AppleWorks—you can find your way.

This is the first of a two-part series covering the basics of moving data among applications in AppleWorks. In this segment, I'll cover the clipboard and ASCII files. In next month's *Main Menu*, I'll take a closer look at ASCII (American Standard Code for Information Interchange) and DIF (data-interchange format) files and offer some ways to take the pain out of pathnames.

You can move data in AppleWorks via five routes: the clipboard; an ASCII file with a carriage return added to the end of each line; a garden-variety ASCII file; a DIF file, row order; and a DIF file, column order.

When you starting moving data, though, you discover that AppleWorks' word processor, database, and spreadsheet are a little like the rooms in Zork I—you can't always get out the

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Heard Here First

by Deborah de Peyster

A reprieve: Apple has extended its **AppleWorks 2.0** upgrade offer to August 1. The original upgrade program (send $50, an upgrade-information card, the cover from your AppleWorks reference manual, and your original AppleWorks program disk) expired at the end of April. The program was so successful, though, that Apple has extended it. According to Apple representatives, the company has received more than 10,000 upgrade requests, and the demand hasn't declined yet. This extension will probably be the last, however—so if you want to upgrade from earlier versions, act now. Contact your local computer retailer or Apple for details. Full retail price for 2.0 is $250; while you can find it for less than that, you can't find it anywhere else (legally) for $50. You can expect delivery of your version 2.0 disks 6–8 weeks after Apple receives your order.

Continued on next page

The Works update: Pressure is mounting in the ongoing saga of who'll get the rights to develop **The Works** for the IIGS. **Productivity Software** president Don Williams wrote The Works, with some help from Bob (alias Ruppert) Lissner, for the Macintosh. Now he's been approached by Lissner and **Broderbund Software** to adapt the program to the GS. Even **Electronic Arts** has said it would jump at the chance to publish a GS version. So what's Williams waiting for? We're not sure, but we think he's sitting on a gold mine.

"Brick on a leash": That's how one disgruntled Apple IIc owner recently described his supposed portable to Apple marketing officials. Surprisingly, the Apple officials didn't disagree. In fact, in response to the question "Is Apple working on a real portable?" Apple II product-marketing manager Tom Virdin said, "We think the market needs great portable computers." If you know Apple double-speak, that comment means Apple is developing **a neat new portable**—and I'd wager we'll see it before the end of this year.

Macro help: In addition to the macro disk **Playmaker**, soon to come from Pinpoint Publishing (see Heard Here First, March 1987, p. 2), another macro product will soon be on the market. We've learned that Randy Brandt is hard at work on **Super Macros**, a disk of prepared sample macros, plus information on creating your own, for Super MacroWorks. It should be available from Beagle Bros in late spring for $20 (plus $2.50 shipping).

Infinite disk space: You may have heard about CD-ROM, the new medium that uses laser-beam technology to let computers store up to 550 megabytes per compact disc. We expect to see examples of this product (from Philips) at the Consumer Electronics Show in Chicago this June. Hayden Software may be the first company to develop a program specifically for CD-ROM—the chess game **Sargon IV**. The large amount of disk space lets Hayden focus on teaching chess in addition to playing it. The game will include running commentary written by a chess expert, along with a number of master games.

If you think all this CD-ROM stuff is just going to go away, think again. Manufacturers looking at the potential of this market expect it to surpass the sales of compact-disc players in the stereo market. And 4.5 million compact-disc players have already been sold to hi-fi enthusiasts: a number CD-ROM manufacturers say will double this year. ■

Answers

by Kelly Stirn

If you'd like Kelly to answer your AppleWorks questions, write him at The Main Menu, *Elm Street, Peterborough, NH 03458. We'll print the answers to as many questions as we can.*

? ASCII File With Calculated Values

Q When printing from a database file to an ASCII file, how do you print a calculated column?

Allan I. Miller, Irvine, CA

A *AppleWorks doesn't save calculated categories to text (ASCII) files. Saving a database as an ASCII file lets BASIC programs read the contents of AppleWorks databases. Apple anticipated that these BASIC programs would perform any further calculations.*

The Main Menu ►►►►►►►►►►►►►►►►►►►►

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There's another way to get calculated results, though—using the power of the AppleWorks spreadsheet.

Prepare your database report in the usual fashion, but don't include any calculated categories. Print this database to a DIF file instead of an ASCII file: Type OA-P (print) and print to "a DIF file on disk."

Next create a new spreadsheet from the DIF file you just saved: Add a new spreadsheet to the desktop and select "from a DIF File." Once the file loads, you'll see all your records with their categories in the same order as they were in the database.

Simply insert a column where you want a calculated category, then enter the formula. Type OA-P and save this spreadsheet by selecting "an ASCII file on disk." You now have an ASCII file with all your original database and calculated values organized in the proper order. It gives you the same result that printing the database to an ASCII file with calculated categories would, if that were possible.

This technique opens up several ways to use the database in conjunction with the spreadsheet. You can use the database to organize and sort your data, then use the spreadsheet to make sophisticated calculations.

? Boldface Print

Q I read with interest your answer in "Boldface Documents" (February 1987, p. 3). I've been trying to do the same thing in a slightly different way. I place a "pause here" command as the first line, then, when the printer pauses, I set the printer commands through the printer control-panel buttons. It works, but it's cumbersome. I tried your suggestion of adding the "boldface begin" command for my Epson MX-80 with Graftrax + and a Fingerprint Plus interface card, but it didn't work. I used Control-I80N and the emphasized-text command for my printer, but it printed in non-emphasized mode. Am I doing something wrong?

Ron Fransetti, Austin, TX

A *First set up a custom printer and enter the commands for boldface type in the Boldface Begin printer option. If you can print boldface from this custom printer, you're halfway there. Now try entering the same commands in the interface-card section of your printer specifications. If interface-card control characters already exist, enter them again, then enter the codes to turn on boldface.*

If this doesn't work and your AppleWorks is version 2.0, it may be preventing you from entering Control-@—a problem specific to Epson printers. I'm not sure whether your Graftrax + version of the Epson MX80 requires Control-@ for boldface commands. If so, your dealer should now have a patch program—or check the April 1987 Answers column ("Fixing Control-@," p. 2) for a short BASIC program that will also remedy this problem.

By the way, make sure you identify the correct control codes your interface card requires so that it doesn't automatically print a carriage return after every 80th character. Control-I80N may not be the proper code for the Fingerprint Plus interface card. If it is, remember to press the control key at the same time you press I, then immediately type 80N without any spaces.

? AppleWorks Hangup

Q I have a word-processor document on the AppleWorks desktop. In the middle of a paragraph containing two words with an Underline Begin and Underline End on either side, the printer stops; AppleWorks shows a stationary cursor in the upper left-hand corner of the screen and hangs. Any thoughts on how to work around this?

Ron Koci, Madison, WI

A *Your problem appears to be a damaged file, not a bug in AppleWorks. When a disk is damaged, AppleWorks can't read it. If this problem occurs often, your disk drive should be checked.*

One possible solution is to press OA-P (print) and select "a text (ASCII) file on disk." Then create a new word-processor document and select "from a text (ASCII) file." All the characters that were in the original document will appear, but AppleWorks will have removed all your formatting and printer options. You'll have to insert them again. Perhaps one of the printer options in the original document was damaged and makes AppleWorks hang.

? Can't Read Disk Tracks

Q I own an Apple IIe and a IIc for business; I swap AppleWorks disks between machines. A "can't read file" message often appears when I attempt to load a data file. If I transfer the file to a newly formatted disk, it can read the data file just fine. On some occasions, neither machine can read the file. All four disk drives have been adjusted and cleaned.

Annie Engelhardt, Portage, WI

A This appears to be a disk-drive problem. One clue is that the bug is fixed when you put your data on a newly formatted disk. The drive head is usually within a certain range of the particular track it's reading from the disk. Problems can occur, though, if the head of one disk drive is writing to one side of the track's range and the head of the other drive is reading from the other side of a track's range. In this instance, the head can't read all the data from the disk correctly, and AppleWorks returns the error message "can't read file."

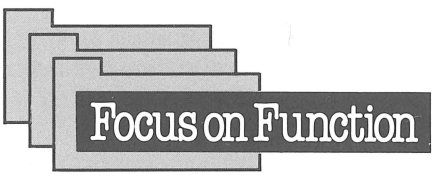
A possible solution is to switch your IIe's disks: Make the startup disk disk 2, and make the data disk disk 1. If the problem continues, try swapping the external disk with one of the IIe's disks (assuming you have a UniDisk, which you can interchange between a IIe and IIc).

? Top of Form Misplaced

Q Sometimes my ImageWriter II prints the first page of a report perfectly, but then prints all subsequent pages from the middle of the paper. What causes this?

A This is a frequent question. When you turn on your ImageWriter, it sets the "top of form," the spot where the printer will position the top of the next page when AppleWorks tells it to go to a new page. If you're like most users, you turn the platen forward after printing is finished so that you can separate the pages easily. You then turn off your printer until the next time you need it. When you turn the printer on next time, though, the paper and its top of form are positioned incorrectly. If you scroll the paper to the correct position, the first page prints perfectly, but all the following ones don't.

To prevent this problem, set the paper to its correct position in the printer before you turn it on. This will set the top of form. You can now adjust the paper in the printer to separate the pages—but remember to move it back before *resuming printing.* ■



Now You See It, Now You Don't: Database Dirty Tricks

by Steve High

AppleWorks contains one of the fastest, slickest, and above all easiest-to-use database managers in the Apple world. But any database, by its very nature, is foe to the Apple aficionado, and AppleWorks has its own share of nasty tricks.

To see a few of these firsthand, let's create a database of losing vice-presidential candidates. (See **Figure 1**.)

Most AppleWorks dirty tricks involve record-selection rules. Press Open apple-R (OA-R) and review your record-selection options. The first thing you learn is that "equals" means *equals*, not *sort of the same*. Mister, Mr., and Mr are three separate entries, even though anybody but a computer knows they mean the same thing.

►Outmaneuvering AppleWorks

You can protect yourself from the literal-mindedness of your Apple in several ways. First, use "contains" instead of "equals" whenever possible. That way, a record-selection rule such as "Title contains Mr" will capture all the "Mr"s, with or without the period.

"Contains" works just like OA-F (find). Try finding "Mr," and you'll see one of the limitations of "contain." (See **Figure 2**.) "Title contains Mr" (or OA-F "Mr") gets you all the "Mrs" records while omitting the "Mister" records.

To solve this problem, enter the information any way you find it, but use OA-Ditto to standardize on a single spelling or style of capitalization.

Then "equals" will get everything you want, without leaving out any items.

Figure 1. *Database of losing vice-presidential candidates.*

Title	First Name	Middle	Last Name	Date Lost
Mr	Franklin	D.	Roosevelt	Nov 20
Mr.	Earl		Warren	Nov 48
Mister	Robert		Dole	Nov 76
Mrs.	Geraldine		Ferraro Zaccaro	Nov 84

Figure 2. *Selecting with "Mr" as the key word.*

Title	First Name	Middle	Last Name	Date Lost
Mr	Franklin	D.	Roosevelt	Nov 20
Mr.	Earl		Warren	Nov 48
Mrs.	Geraldine		Ferraro Zaccaro	Nov 84

To try this, display the vice-presidential database in multiple-record layout. Place the cursor on the second record and press OA-' or OA-'' to copy the ''Mr'' from Roosevelt's record into Warren's. Hold down this key combination to copy Warren's ''Mr'' into Dole's record.

Now use OA-R to select ''title equals Mr,'' and you should get everybody but Gerry Ferraro. Leaving that record selection in place, use OA-F to try to find ''Mrs.'' AppleWorks replies, ''No records match your request.''

Leave the record-selection rules in place and press OA-I to insert the information in **Figure 3**.

Now zoom into multiple-record layout, and watch what comes up on screen (**Figure 4**). The lady vanishes.

Now change Earl Warren's title to Ms in your database. As long as you keep your eye on her, ''Ms'' Warren stays in place. But the minute the entry goes off screen, the lady again vanishes. Try hitting Escape twice and watch what happens.

►Report Generation

Now create a table-style report called ''Misters'': Press OA-P and select ''get a report format.'' Notice that AppleWorks automatically transfers the record-selection rule ''title equals Mr'' from Review/Add/Change to your report format.

While still in the report format, use OA-R to remove all record-selection rules from ''Misters.'' Escape to Review/Add/Change, then go immediately back to the ''Misters'' report. Notice that the record-selection rule is back in place.

Now try reversing the procedure. Go to Review/Add/Change and remove all record-selection rules with OA-R. Use OA-P to move back to your ''Misters'' report. Notice that this time the record-selection rules are still in place.

The rule is this: AppleWorks stores record-selection rules with the report format. But if there are no record-selection rules with a report format, it will adopt any rules in place in Review/Add/Change. Actually, if you remove record-selection rules from a report and print it immediately, AppleWorks will print all records. But if you do anything else, such as save the file, the Review/Add/Change rules will prevail.

The moral is this: Always look in the upper left corner of the screen to see what ''selection'' says before using OA-F.

►Blanking Fields

Another AppleWorks dirty trick is the old invisible-spacebar gag. AppleWorks can see it, but you can't. Using the square cursor and spacebar, try erasing the ''D.'' in the Roosevelt entry. You'll see the data in **Figure 5**.

The category may look blank, but it isn't, at least not in the AppleWorks sense of the word ''blank.''

To prove this, use OA-R to select ''middle initial is blank.'' You'll see all the entries come up except the Roosevelt item.

Select all records and take a close look. You'll see that truly blank categories contain hyphens. The category you ''blanked out'' with the spacebar doesn't.

To remove the offending spacebar from the middle-initial category, erase it with OA-Y or the delete key, or copy from the record above with OA-Ditto, or type in a hyphen.

The record-selection rule ''middle initial is blank'' is exactly the same as ''middle initial contains -'': Try it and see.

►More Trickery

A final bit of strangeness can be observed in the Date Lost category. Suppose you decide

Figure 3. *Inserting ''Mrs'' (no period).*

Title	First Name	Middle	Last Name	Date Lost
Mrs	Geraldine		Ferraro Zaccaro	Nov 84

Figure 4. *Selecting with ''equals'' (not ''contains'').*

Selection: Title equals MR

Title	First Name	Middle	Last Name	Date Lost
Mr	Franklin	D.	Roosevelt	Nov 20
Mr	Earl		Warren	Nov 48
Mr	Robert		Dole	Nov 76

Figure 5. *Erasing an entry with the spacebar.*

Title	First Name	Middle	Last Name	Date Lost
Mrs	Geraldine	-	Ferraro Zaccaro	Nov 84
Mrs	Geraldine	-	Ferraro Zaccaro	Nov 84
Mr	Robert	-	Dole	Nov 76
Ms	Earl	-	Warren	Nov 48
Mr	Franklin		Roosevelt	Nov 20

Update!

In a recent article on time and date math ("How Much Time Do You Waste?" March 1987, p. 1), Steve High suggests using AppleWorks' search-and-replace feature to change all *AM*s to *0* (zero) and *PM*s to *12* as the first step in converting to 24-hour time.

This works fine for all hours except noon. The quickest way to fix it is to use the record-selection rule "time begins with 12," change the top record from 12 to zero, then press Open apple-Ditto to change the rest. □

to create a unique record by filling this category with asterisks. Now try a record-selection rule that looks like this: "Date Lost contains ********." AppleWorks will tell you—incorrectly—that "no record matches this selection."

Try using "Date Lost equals ********." AppleWorks won't even let you type it in.

If you type "Date Lost equals 11/20," AppleWorks will convert that to its standard date format and find the right record. But ask for "Date Lost contains November" and AppleWorks comes up empty. As we observed earlier, OA-F works like record-selection rules using "contain," and will also fail to find fragments of a date entry unless you've typed them in exactly right.

Now use OA-N to change the name of "Date Lost" to "Lost," and enter Estes Kefauver and Henry Cabot Lodge as in **Figure 6**.

Figure 6. *Changing the "date" category name.*

Title	First Name	Middle I	Last Name	Lost
Mr	Estes		Kefauver	November 1956
Mr	Henry	Cabot	Lodge	November 1960

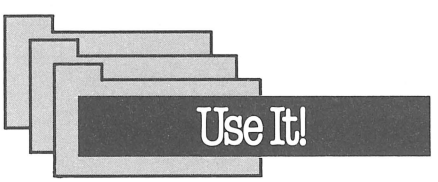
The record-selection rule "Lost contains November" will find both these records. But try OA-A and you'll see you can't sort the Lost category chronologically.

Change Lost back to Date Lost and try OA-A again. The "chronological" and "reverse-chronological" choices are back, but they don't work.

To make them work, we can make the old invisible spacebars work to our advantage. Use the right-arrow key to move to the end of the "November 1956" entry. Press the spacebar and Return.

This converts the record to standard format. Do the same with Henry Cabot Lodge's record and the date category will sort properly.

Remember—computers hate people. Even the best-trained Apples occasionally turn on their owners—so back up your files frequently and suspect the worst. Fortunately, AppleWorks helps keep rebellion and treachery to a minimum. ■



The Power of Compound Interest

by John B. Slack

Everyone learns in school that the Indians sold Manhattan Island to Dutch settlers for $24, and now Manhattan is the heart of New York City: supposedly a sharp trade by insiders who exploited the native Americans. But when we shine the light of compound interest on this transaction, we might find that the Indians didn't get such a bad deal. Let's use the AppleWorks spreadsheet and the template presented here to analyze it.

The opportunity to earn money on money, or *interest*, is available at virtually every financial institution. If you add interest to the initial amount invested—the *principal*—the base for additional interest grows, or *compounds*, with each interest payment.

Three factors determine the future value of an initial investment: interest rate, length of time the institution pays interest, and frequency, or number of times per year it pays interest. The template presented here calculates the future value of an investment when these financial data are known. You enter the amount of money invested, annual interest rate, term of the investment in years and months, and number of times per year interest is paid. The template calculates the future value of the investment and the total interest earned.

►Getting Started

Create a new spreadsheet file from scratch and call it FUTURE.VALUE. A blank spreadsheet containing rows and columns appears. Position the cursor on cell A3 and type Calculation of Future Value. Press Return. Now

skip two rows and go to cell A6. Type the following titles into cells A6 through A12: Initial Investment, Nominal Interest Rate %, Compounding Periods/Year, Number of Years and Months, and Future Value.

Put your cursor on cell D6 and type " = , then press Return. With the cursor still on cell D6, center this label: Press Open apple-L, E (entry), L (label format), C (center). Now copy the label down column D to cell D12: Press OA-C, Return (staying within the worksheet), Return again to indicate the source of the material you want to copy. Move the cursor down one cell and type a period to indicate the start of the destination range. Move the cursor down again until it rests on cell D12 and press Return. Voilà! Press OA-B and Return to blank out the extra label in cell D11. Your screen should look like **Figure 1**.

Figure 1. *Entering labels.*

```
Future Value
============

Initial Investment                =
Nominal Interest Rate             =
Compounding Periods/Year          =
Number of Years                   =
Number of Months                  =

Future Value                      =
```

►Entering the Formula

The equation we use to calculate future value is simple:

$F = P(1 + I/N)^{NY}$

To enter this formula, position the cursor on cell E12, type in the following formula, and press Return:

((1+(E7/E8/100))^
(E8*((12*E9+E10)/12)))*E6

Type in the formula exactly as written: Don't leave out any terms and don't omit any parentheses. When you finish, your screen will show ERROR in cell E12. Don't worry, as most formulas of this type will show ERROR when they have no data to process.

Figure 2. *Calculating future value when interest is compounded.*

```
Future Value
============

Initial Investment                =          2000.00
Nominal Interest Rate             =             8.50
Compounding Periods/Year          =                4
Number of Years                   =                5
Number of Months                  =                6

Future Value                      =          3176.40
```

►Formatting Cells

The values you enter will have two different formats. Compounding Periods/Year and Number of Years and Months will be integers with zero decimal places; Initial Investment, Nominal Annual Interest Rate, and Future Value will be integers with two decimal places.

To set these different value formats, place the cursor on cell E8. Press OA-L, E, V, F, 0 (zero), Return. Repeat this sequence for cells E9 and E10. In cells E6, E7, and E12 press OA-L, E, V, F, 2, Return.

►Entering Data

Let's assume you've invested $2000 in a certificate of deposit paying 8.5 percent interest compounded four times a year. How much money will you have at the end of five years six months? To answer this question, put the cursor on cell E6 and enter 2000. In cell E7 type 8.5; in cell E8 enter 4. In cell E9 enter 5; finally in cell E10 type 6. Cell E12 shows the future value of your money immediately: $3176.40. Your screen should look like **Figure 2**.

►Playing "What If?"

One of the most powerful features of an electronic spreadsheet is its ability to immediately provide the new result of a calculation when you change a parameter.

In this example let's compare the results of different investment schemes. Place the cursor on cell E6. Press OA-C, then Return to keep the copy within the worksheet. At the

Favorites

►Spreadsheet Calculation

Automatic reclculation in the AppleWorks spreadsheet can be a pain when you have to sit and watch it every time you enter a new number. Folks with lots of data entry ahead of them should just turn it off. It's simple: Press Open apple-V to get your "Standards" choices, then choose recalculation frequency and set it to manual. Save your spreadsheet that way and you'll be able to type in data a lot faster. Just press Open apple-K to reactivate calclulation. ■ **—Paul Statt, Contributing Editor**

Figure 3. *Comparing savings-investment alternatives.*

```
Future Value
============

Initial Investment          =      2000.00   2000.00
Nominal Interest Rate       =         8.50     10.50
Compounding Periods/Year    =            4       365
Number of Years             =            5         7
Number of Months            =            6         0

Future Value                =      3176.40   4170.52
```

prompt to indicate the source, move the cursor down to cell E12 and press Return. The prompt now asks the destination of the source material. Place the cursor on cells F6, G6, and so on, and press Return. The prompt then goes through each term in the formula in cell E12 and asks NO CHANGE or RELATIVE. Answer RELATIVE for each term. The screen will now show the data in column E repeated in columns F, G, H, and so on. To evaluate other investment opportunities, just change the data shown.

Your roommate exclaims that she has heard from the newsboy that his brother Ralph overheard a man wearing a vest telling this blonde wearing real diamonds that the only way to save was to invest in this bank in Mexico that compounded your money every day and payed 10.5 percent as long as you didn't take your money out for seven years! To evaluate this hot tip, change the numbers in column F. She's right: When you get your money back, you'll have $4170.52. Only one problem—no one remembers the name of the bank. Your template should now look like **Figure 3**.

To analyze the Manhattan deal, put 24 into cell E6, and 300 into cell E9. Assume 8.5 percent interest and compound it annually. The pound signs you see in cell E12 indicate that the number is too large for the cell size. Widen the column: Press OA-L, C, Return, C, and the right-arrow key many times. The answer is unbelievable—that $24 is now worth more than $1 trillion.

Save your template to a data disk and recall it whenever you're considering a savings or investment plan—you can predict the results before you make a financial commitment.■

Moving Data

Continued from p. 1

way you came in. Moreover, the way you choose to move data can change their shape and appearance.

The following is, I believe, an exhaustive list of the ways in which you can move data from one AppleWorks application to another:

1) word processor to database via ASCII (1–30 database categories possible; one is usually best)

2) word processor to database via ASCII with a carriage return added to the end of each line (1–30 categories possible)

3) word processor to word processor via the clipboard

4) database to spreadsheet via ASCII (label- or table-style report)

5) database to spreadsheet via DIF (label- or table-style report)

6) database to spreadsheet via ASCII with a carriage return added to the end of each line (label- or table-style report)

7) database to word processor via ASCII (label- or table-style report)

8) database to word processor via ASCII with a carriage return added to the end of each line (label- or table-style report)

9) database to word processor via clipboard (label- or table-style report)

10) database to database via clipboard

11) spreadsheet to database via ASCII

12) spreadsheet to database via ASCII with a carriage return added to the end of each line

13) spreadsheet to database via DIF, row order

14) spreadsheet to database via DIF, column order

15) spreadsheet to word processor via clipboard

16) spreadsheet to spreadsheet via clipboard

This list and its variations contain 64 different ways to move data within AppleWorks. In addition, you can move data out of any module and back into the same module, or you can combine any of these moves into a multiple move—for instance, when you want to move from the word processor to the spreadsheet, since the word processor can't print a DIF file and the spreadsheet can't make a file from an ASCII file.

But before taking up some of the more complex file transfers, let's consider the simplest solution first.

►The Clipboard

The easiest way to move data in AppleWorks is through the clipboard. But you can also

lose data this way, if you forget what you're doing.

The AppleWorks clipboard is something like a real clipboard, but you can't flip the pages. Only the top page is visible, and when you cover that up, you won't be able to see it again. In other words, whenever you put anything on the clipboard, you erase any previous material.

As long as you remember that the clipboard is a very temporary resting place, it's usually the easiest, fastest way to move data within the same file type. Press Open apple-M (OA-M, move) or OA-C (copy) to get information to or from the clipboard in the word processor, spreadsheet, or database.

If you try to move data between different file types with clipboard, though, you'll run into an error message. You can move database or spreadsheet information to the word processor with clipboard, but not with OA-C or OA-M. Use OA-P (print) instead. Once in the word processor, press OA-M or OA-C to retrieve the database or spreadsheet information.

Just remember that whatever you put on the clipboard will displace whatever data you transferred there before, whether you copied, moved, or printed to it.

To get an idea of just how fragile clipboard data are, copy some information to it from any of the three applications. Then press OA-P to begin printing a database table-style report to the clipboard. When AppleWorks asks you to "type report date or press Return," press Escape to abort the print command. You'll find that the clipboard is empty, even though you didn't complete your print-to-clipboard command.

Because anything you move to the clipboard displaces the former occupant, always press OA-C (copy) instead of OA-M when moving *from* the clipboard. You don't need to clean out the clipboard, and you might want to use the same data again. Suppose, for example, you want to print several short letters and they all use the same printer options at the top of each document. You can enter the options once with OA-O, then copy them from the clipboard to each of the other letters.

If you buy a macro program, such as MacroWorks, AutoWorks, or KeyPlayer, your clipboard will probably get a real workout. You can use a clipboard macro to create an "oops" key that can retrieve data you delete accidentally, or a key that will reverse two transposed letters. Be careful, though: These new commands will wipe out any other clipboard data in the blink of an eye.

You can't use the clipboard to move back and forth between database and spreadsheet files, nor can you use it to move word-processing data to the spreadsheet or database. In addition, the clipboard holds no more than 250 lines of text at a time—a restriction some users think is AppleWorks' most serious limitation. Along with its extra-memory cards, Applied Engineering sells an AppleWorks software modification that gives you a huge clipboard—more than 15,000 lines. Other memory boards, notably Apple's, don't increase the size of the clipboard.

►Another Solution

To overcome the clipboard's limits, you have to learn how to move data through DIF or ASCII files. Like installing a custom printer, this process is a bit unfriendly—certainly not very AppleWorks-like—but kids in junior-high school learn how to do it, so you can, too. Using DIF and ASCII files, you can move data all the ways the clipboard can, plus a few more.

Even so, you'll probably never completely abandon the clipboard for file transfer. Aside from ease of use, another advantage of moving data via the clipboard is that they arrive at their destination unchanged. In contrast, moving data with DIF or ASCII files can cause some subtle and not-so-subtle changes along the way.

For example, database group totals disappear when you print them to a DIF file. So do word-processing commands when you print them to ASCII. Moving through the clipboard preserves the original file faithfully.

►Many Happy Carriage Returns

You can choose from two ways of creating ASCII files with AppleWorks:

1) Whenever you choose to print a document, AppleWorks offers you a choice of three printers or "a text (ASCII) file on disk." In the database or spreadsheet, you can also choose a "DIF file."

2) If one of your three printers is a "disk" printer, the word "disk" appears in parentheses after the printer name. Using this disk printer is an alternative, and often better, way to create an ASCII

file. If you don't already have a disk printer, adding one is simple. Go to the printer-specifications menu and add a printer. Choose #4, Apple Silentype, as the type of printer. Then, when AppleWorks asks you to name the slot the printer should address, choose "print to disk or on another Apple." That's all there is to it. Now you can print an ASCII file that will add a carriage return to the end of each line, instead of arbitrarily inserting them every so often. The primary reason for creating such a disk printer is to send files via modem over telephone lines, but it can also be useful when transferring data.

►A Little Experimentation

To see the difference between the two kinds of ASCII files, use the ASCII text-file option to print a short word-processing document, such as a letter, to disk, and convert it to a single-record database document. Now try the same procedure with the disk printer and convert that to a database.

Unless your word-processing document contains very short sentences, like a grocery list, you'll probably get better results with the disk printer. Whenever you make a grocery-type list, you probably add a carriage return to the end of each line as a matter of course. The disk printer simply automates this process and makes your data uniform so that you can convert them easily to a database file.

If you find moving data with ASCII files more difficult than with the clipboard, you're not alone. Most people have trouble with pathnames—and that's the topic of part 2 of this article in next month's *Main Menu*. ■

New Products

Organize Those Files

by Paul Statt

Sometimes I forget that AppleWorks is supposed to get me organized. I've got half a dozen unlabeled disks on the desk, a hard-disk drive crying for subdirectories, and a UniDisk with divided loyalties—AppleWorks shares space on it with all my BASIC programs.

The obvious solution would be an AppleWorks database file listing all my files. I could then sort them and discover which are BASIC games, which were created before a certain date, how long each one is, and a host of other facts. I could even print lists of files—reports of which ones I created today and which I changed.

The trouble is the labor involved in typing lists of files into a database. Sure, I could get a hardcopy of the "list all files on the current disk" screen, but I'd still have to type eventually.

A couple of new products have come to the rescue. Both **AppleWorks Filer**, from JEH Software (2297 Sedgwick Avenue, Bronx, NY 10468, price unavailable at press time), and Beagle Bros' **Super MacroWorks** (3990 Old Town Avenue, San Diego, CA 92110, 619-296-6400, $34.95) can read the catalogs of files on your disks into a database file.

►AppleWorks Filer: Twin Databases

JEH's Filer runs apart from AppleWorks: I imagine you'd want to use it in the morning before you get started and in the evening when you're finished with AppleWorks. It creates an ASCII file called APPLE.VOLUMES, which lists all the ProDOS volumes you're using, and one called APPLE.FILES, which lists all data and program files within those volumes.

From those ASCII files you create AppleWorks database files with five categories per record for volumes (volume name, number of files, blocks used, blocks free, room on disk) and nine categories per record for your data files and programs (volume name, filename, type, blocks, bytes, data modified, time modified, date created, time created).

You can change the order of these categories, or delete some if you prefer, with the exception of the "volume name" category in the data/program files database. If you use a number of files, Filer can help AppleWorks keep them organized.

►An Extra Command

Beagle Bros' original MacroWorks offered a handy catalog alphabetizer on the back of the disk. This utility was of some help, but it didn't create a database file from that list, and it offered only one way to sort—alphabetically.

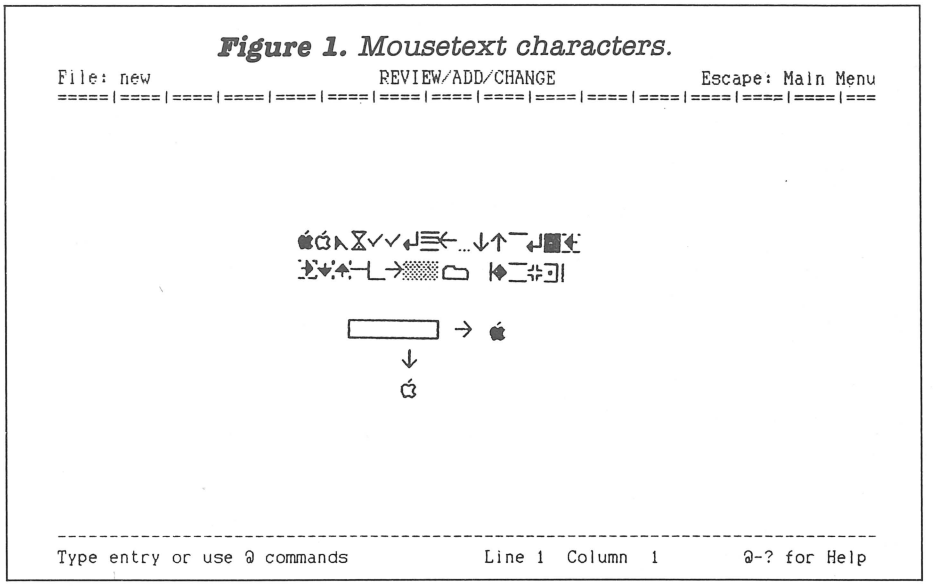
Super MacroWorks adds an extra command to AppleWorks, Solid apple-^, which performs the same function AppleWorks Filer does, without leaving AppleWorks. The only prerequisite is that you first add a database-template file called Disk Files, with eight predefined categories: disk, file, type, size, date, time, and note.

The "note" field is a nice touch: You could add one to

the AppleWorks Filer database file, but that extra step takes some time. The categories in the Filer database aren't named, but you could name them yourself later.

Creating a database file for your disk is a simple idea that makes a great deal of difference in how efficiently you work—and it's as easy as it is inexpensive. ■

Figure 1. *Mousetext characters.*



Reviews

Printer Power

by Paul Statt

AppleWorks handles printing pretty well, but it's telling that the "default" printer for AppleWorks 1.0 was the Apple Scribe: AppleWorks is designed for an old (now discontinued) printer.

Today, the printer of choice for Apple users is the ImageWriter II. It supports six colors plus black—but AppleWorks can use only one: black. The ImageWriter can print boldface, underlining, subscripts, and superscripts, half-height letters, and several foreign character sets—but AppleWorks can't handle the latter two options.

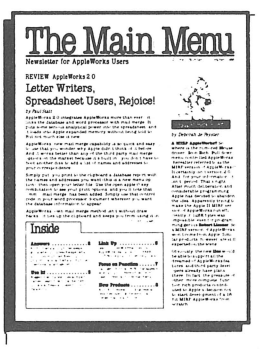
If you want AppleWorks to take advantage of all the ImageWriter's functions, you can configure the program for your ImageWriter as a custom printer—but then you lose certain other ImageWriter functions, such as proportional spacing. And if you make your ImageWriter a custom printer, you're losing one of your printer options, too—the ability to make some other device a custom printer.

ExtraWorks, a printer utility for AppleWorks 1.2, 1.3, and 2.0 from Electronic Management Workshop, picks up as many as four ImageWriter functions, without giving up the custom-printer option. It's an inexpensive patch for the SEG.PR file on your AppleWorks program disk that lets you change the meaning of the underline (Control-L in text, UB and EB on the print-options menu), superscript (+B and +E), or subscript (−B and −E) commands as you see fit.

AppleWorks modified with ExtraWorks remains limited to four print options, but the choice is more flexible—such as replacing superscript, subscript, boldface, and underlining with four colors if you've installed a color ribbon in your ImageWriter.

ExtraWorks also lets you print slashed zeros, or change one option to print mousetext—those little characters Apple added to the text ROM (read-only memory) of the IIc and enhanced IIe (**Figure 1**). Mousetext may seem less like an advantage than a novelty at first glance. But the utility of mousetext lies in Apple graphics, as shown at the bottom of **Figure 1**. This particular design may not mean much right now, but I had a lot of fun creating it, and it demonstrates mousetext's potential for graphics production.

As for half-height superscripts and subscripts, they have their place, but it's a small one. In **Figure 2** you can judge for yourself the difference between half-height and full-height subscripts


The Main Menu
Newsletter for AppleWorks Users
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and superscripts. The advantage of half-height is clearly that it saves space, but full-height is more legible.

I tested ExtraWorks only with the ImageWriter II for this review, but the program reportedly allows for italic and double-strike type on Epson dot-matrix printers, as well.

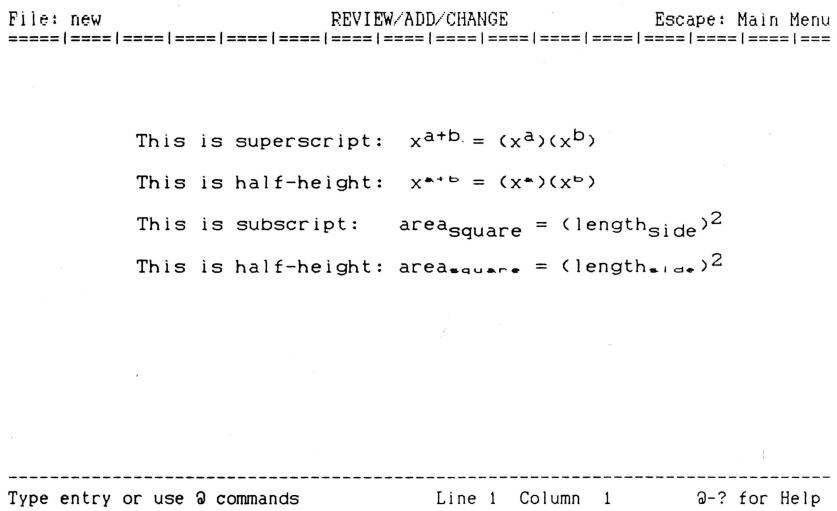
►More for Your Money

Installation is simple and straightforward; the instructions, if you need them, are found in an AppleWorks word-processor file on disk. My only serious complaint is that all alterations you make with ExtraWorks in the AppleWorks SEG.PR file are permanent right from the start. If you want boldface, half-height superscripts, purple, and orange today, but change your mind and want green tomorrow, you're out of luck: You'll have to start anew with a fresh AppleWorks program disk.

You'll find some freebies on the ExtraWorks disk. (Why do only small developers give software away?) ExtraWorks' author Eugene Whitehouse has included an optional file for AppleWorks users with mass-storage devices (3½-inch or hard disks) that lets you keep codes for more than three printers in AppleWorks. Whitehouse's method for printing two-line headers in AppleWorks, along with a BASIC programming utility that lets you change names of commands (MS-DOS groupies can change CAT to DIR), is also on disk.

ExtraWorks is a neat little package. The extras on disk, plus Whitehouse's help line (he also spends time answering questions on the *inCider* BBS, 603-924-9801) and the program's straightforward instructions that state the program's limitations frankly, make up for the few drawbacks. If you need color, half-height superscripts or subscripts, or slashed zeros in AppleWorks, ExtraWorks is well worth the extra $20.■

Figure 2. *Half-height superscripts and subscripts.*


File: new
REVIEW/ADD/CHANGE
Escape: Main Menu
This is superscript: $x^{a+b} = (x^a)(x^b)$
This is half-height: $x^{a+b} = (x^a)(x^b)$
This is subscript: $area_{square} = (length_{side})^2$
This is half-height: $area_{square} = (length_{side})^2$
Type entry or use @ commands
Line 1 Column 1
@-? for Help

Favorites

►Format Limitations

As you may know, you can format a new disk with either the System Utilities Disk (ProDOS User's Disk for IIe owners) or AppleWorks. Although at first there appears to be no difference, disks formatted with AppleWorks are ProDOS "data disks" and won't boot, even if you copy PRODOS and .SYSTEM files to them. Knowing that difference can save you a lot of frustration.■ **—C.R. Keith, Jr., Holloman Air Force Base, New Mexico**

Product Information

ExtraWorks
Electronic Management Workshop
25 Kensington Avenue
Suite 503
Jersey City, NJ 07304
(201) 434-5110 (eves.)
$20 ppd.
(NJ residents add 6% sales tax)
Rating: 🍎🍎🍎🍎

The Main Menu reviews range from poor to excellent denoted by one to five red apples. If a product receives one red apple, it means the reviewer wouldn't spend his money to buy it and neither should you. If it receives five red apples, it means that our usually tight-fisted reviewer would part with his money to buy it because of the value it offers in increased productivity and performance.

excellent 🍎🍎🍎🍎🍎
good 🍎🍎🍎🍎
satisfactory 🍎🍎🍎
fair 🍎🍎
poor 🍎